

Serial No. 10/790,030

Attorney Docket No. 26DT-005-CON

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Listing of claims:

1-5 (Canceled)

6. (Currently amended) A method for manufacturing a fuel tank welding joint for connecting a fuel tank to a prescribed member, the method comprising:

forming a joint main body made of a first resin material configured to be welded to a wall of the fuel tank, the joint main body including (i) a welded edge portion to be thermally welded to the wall of the fuel tank and (ii) a tube portion for connecting a hose, the tube portion having a connecting passage to connect an interior of the fuel tank and the prescribed member; and

forming a barrier layer by injecting a second resin material into a cavity of a mold unit in which the joint main body has been set, the second resin material being adhesively and chemically reactive with the first resin material and more fuel-impermeable than the first resin material,

wherein forming the barrier layer includes allowing (i) allowing the second resin material to flow through an end of the tube portion into the cavity, so as to form an end portion, and (ii) allowing the second resin material to flow toward the welded edge portion, so as to form a lower end of the barrier layer with a gap from the welded edge portion, and

the first resin material includes a modified olefinic resin containing a polar functional group and the second resin material is selected from the group of polyamide and polyacetal, and an injection temperature of the second resin material is higher than that of the first resin material.

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7. (Original) The method for manufacturing a fuel tank welding joint according to Claim 6, wherein the barrier layer is formed on a surface of the joint main body along the connecting passage.

8. (Previously presented) The method for manufacturing a fuel tank welding joint according to Claim 7, wherein the end portion includes a hose catch for holding the hose, the hose catch having a greater diameter than an outer circumference of the end of the tube portion.

9. (Previously presented) The method for manufacturing a fuel tank welding joint according to Claim 8, wherein the barrier layer includes an umbrella-shaped portion configured to engage with the joint main body.

10. (Previously presented) The method for manufacturing a fuel tank welding joint according to Claim 6, wherein the first resin material includes a modified olefinic resin containing a polar functional group and the second resin material is selected from the group of polyamide and polyacetal.

11. (Previously presented) The method for manufacturing a fuel tank welding joint according to Claim 6, wherein the mold unit includes a split mold including a first mold and second mold; and the joint main body comprises a burr cutting edge, the burr cutting edge being disposed upstream from the welded edge portion in a route through which the second resin

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material passes, the burr cutting edge being pressed to a part of the second mold by the a clamping pressure from the first mold, thereby defining the cavity.

12-14 (Canceled)

15. (Currently amended) A method for manufacturing a fuel cut-off valve opening and closing a connecting passage, connecting a fuel tank to a prescribed member, according to a level of fuel in the fuel tank, the method comprising:

forming a lid made of a first resin material that is configured to be thermally welded to a wall of the fuel tank, the lid including (i) a lid main body with the connecting passage, (ii) a welded edge portion to be thermally weldable to a wall of the fuel tank and (iii) a barrier layer formed on a surface of the lid main body;

forming a barrier layer by injecting a second resin material into a cavity of a mold unit in which the lid main body has been set, the second resin material being adhesively and chemically reactive with the first resin material and more fuel-impermeable than the first resin material,

wherein forming the barrier layer includes allowing (i) allowing the second resin material to flow through an end of the lid main body into the cavity, so as to form an end portion, and (ii) allowing the second resin material to flow toward the welded edge portion, so as to form a lower end of the barrier layer with a gap from the welded edge portion, and

the first resin material includes a modified olefinic resin containing a polar functional group and the second resin material is selected from the group of polyamide and polyacetal, and an injection temperature of the second resin material is higher than that of the first resin material.

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16. (Original) The method for manufacturing a fuel cut-off valve according to Claim 15, wherein the barrier layer is formed on a surface of the lid main body along the connecting passage.

17. (Previously presented) The method for manufacturing a fuel cut-off valve according to Claim 16, wherein the end portion includes a hose catch for holding the hose, the hose catch having a greater diameter than an outer circumference of the end of a tube portion of the lid main body.

18. (Previously presented) The method for manufacturing a fuel cut-off valve according to Claim 17, wherein the barrier layer includes an umbrella-shaped portion configured to engage with the lid main body.

19. (Original) The method for manufacturing a fuel cut-off valve according to Claim 15, wherein the first resin material is a modified olefinic resin containing a polar functional group and the second resin material is selected from the group of polyamide and polyacetal.

20. (Previously presented) The method for manufacturing a fuel cut-off valve according to Claim 15, wherein the mold unit includes a split mold including a first mold and second mold; and the lid main body comprises a burr cutting edge, the burr cutting being disposed upstream from the welded end in a route through which the resin material passes, the burr cutting edge

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being pressed to a part of, the second mold by the clamping pressure from the first mold, thereby defining the cavity to form the end portion.

21. (Previously presented) The method for manufacturing a fuel tank welding joint according to claim 6, wherein:

the forming a joint main body includes forming a lid including the joint main body,

the method further comprises (i) forming a case main body mounted on the lid, the case main body having a valve chamber connecting to the connecting passage, and (ii) forming a float accommodated in the valve chamber, the float rising and falling according to a level of fuel in the fuel tank, and

the lid, the case main body, and the float form a fuel cut-off valve opening and closing the connecting passage according to a level of fuel in the fuel tank.

22. (Previously presented) The method for manufacturing a fuel tank welding joint according to Claim 21, wherein the barrier layer is formed on a surface of the lid main body along the connecting passage.

23. (Previously presented) The method for manufacturing a fuel tank welding joint according to Claim 22, wherein the end portion includes a hose catch for holding the hose, the hose catch having a greater diameter than an outer circumference of the end of a tube portion of the lid main body.

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24. (Previously presented) The method for manufacturing a fuel tank welding joint according to Claim 23, wherein the barrier layer includes an umbrella-shaped portion configured to engage with the lid main body.